

Flight Scientist Report  
Saturday 05/21/2022 ACTIVATE RF160

Flight Type: Statistical Survey Flight  
Flight Route: TXKF ENAPI 335902N0721801W 351600N0723956W 364330N0730542W  
365623N0730931W ATLIC KLF I  
Special Notes: Flight from Bermuda to LaRC

**King Air**

Pilot report (Slover):

ACTIVATE science collection enroute home from Bermuda via TXKF ENAPI 335902N0721801W 351600N0723956W 364330N0730542W 365623N0730931W ATLIC KLF I at FL280. The Lat/Lon coordinates represent a CALIPSO line with an overpass at 1916Z. Both aircraft were halfway up the line at overpass time. Some cirrus at altitude, but stayed at same altitude as it was short lived. Turned off RSP a few times for protection.

Flight scientist report (Seaman):

RF160

5/21/2022 Flight 2 of 2

Takeoff: 1651 utc

Landing: 2030 utc

Flight path: TXKF ENAPI 33.98N/72.30W 36.04N/73.16W ATLIC KLF I

Ops Notes:

Nominal. CALIPSO underflight.

Instrument notes:

All operated nominally.

Science notes:

Heavily layered structure throughout flight. 3 sondes on CALIPSO under flight leg.

Sonde drops:

1) at altitude after leaving TXKF

- 2) halfway to CALIPSO LEG
- 3) start CALIPSO leg / turn point
- 4) Timed with CALIPSO overfly (roughly mid point of leg)
- 5) End of CALIPSO leg / turn point

**Falcon**

Pilot report (Thorson):

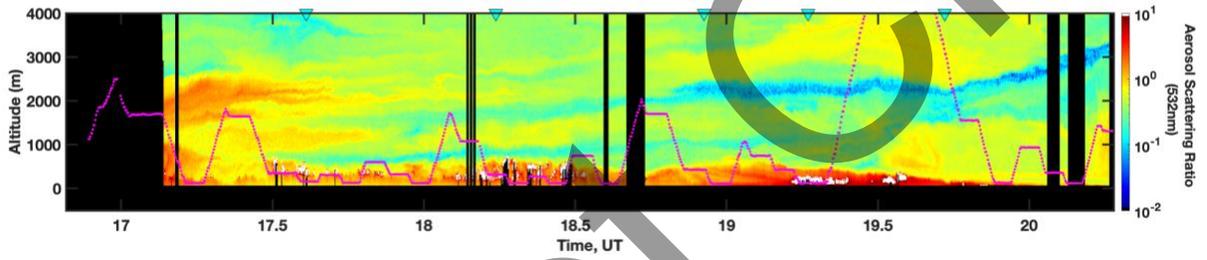
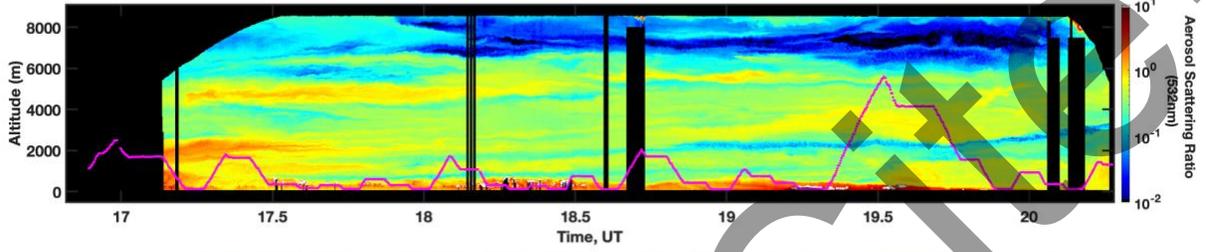
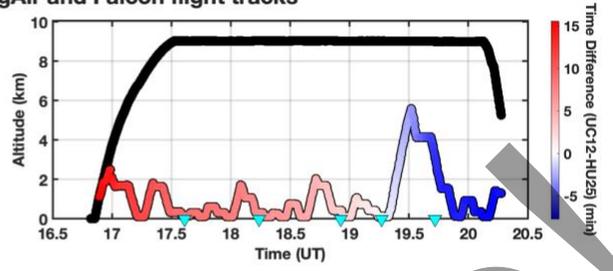
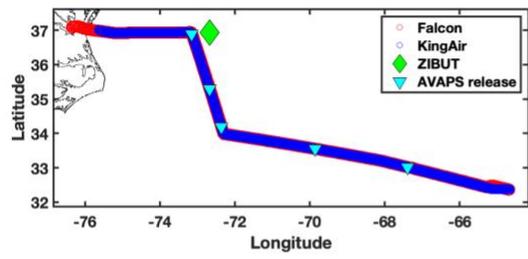
Science

Flight scientist report ():

Winstead:

No ground cart in Bermuda, so all equipment had to be shut off for refueling. After fueling, one Falcon engine was started and AMS was powered up for 1 hour before takeoff. Other equipment was powered up 0.5 hour before takeoff to try and minimize heat buildup in cabin. Just prior to taxi, lost communication with DAQ computer and had to do hard shutdown of computer and restart it. Did a spiral for CALIPSO overpass.

### 20220521 - ACTIVATE - KingAir and Falcon flight tracks



DOI

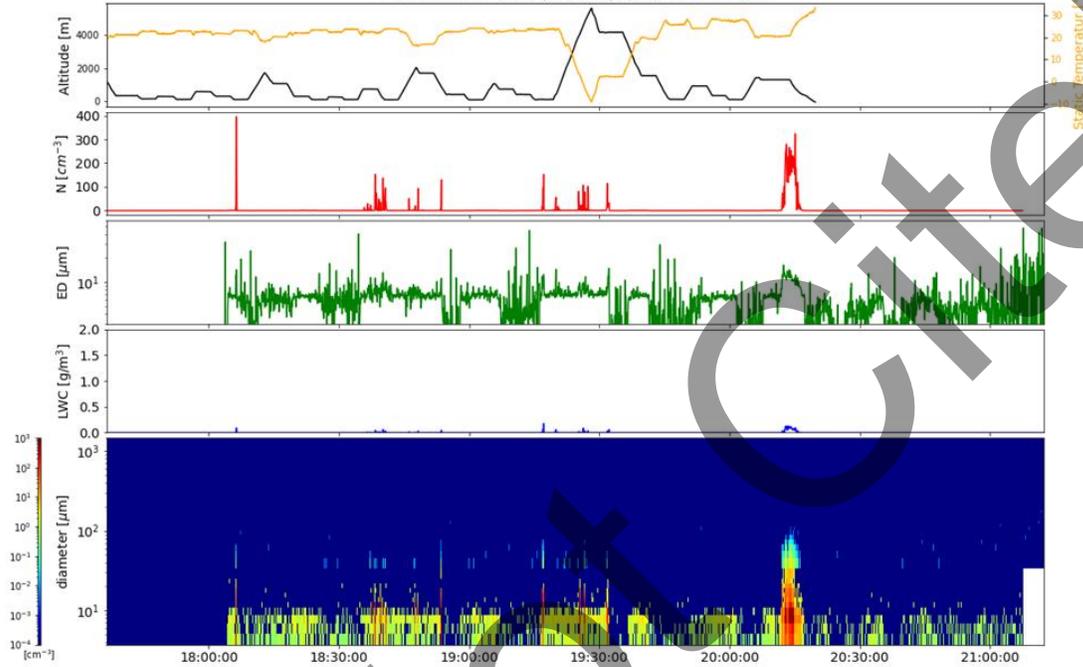
# Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



Cloud Probes (FCDP & 2DS) Quicklook 21/05/2022 17:36:23-21:12:28



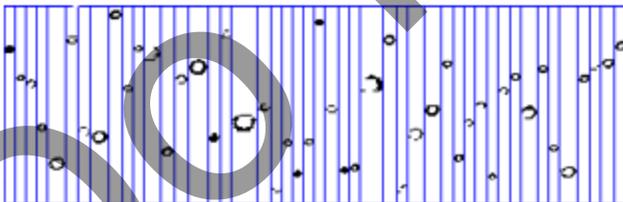
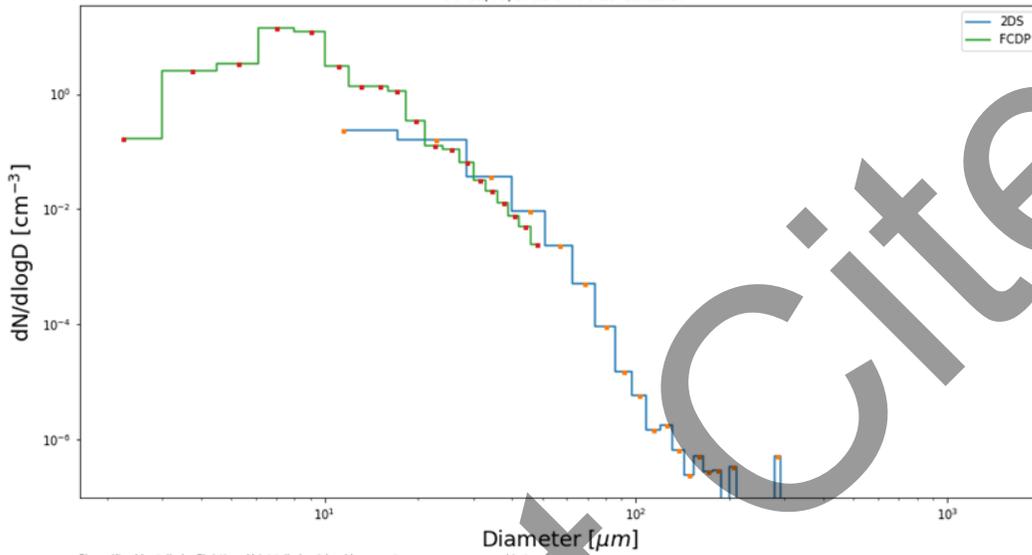
Simon.Kirschler@dlr.de, Christiane.Voigt@dlr.de, richard.h.moore@nasa.gov, ewan.c.crosbie@nasa.gov

# PSD ACTIVATE

preliminary data, only for quicklook use  
Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

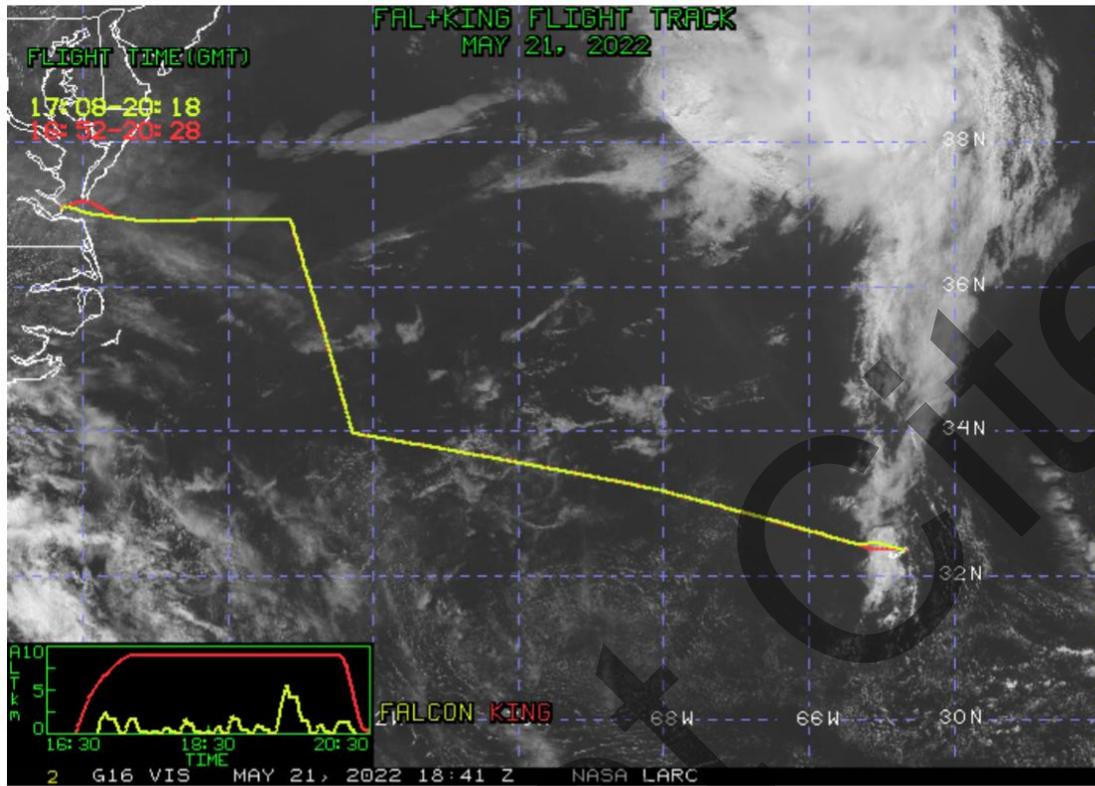


PSD 21/05/2022 17:36:23-21:12:28

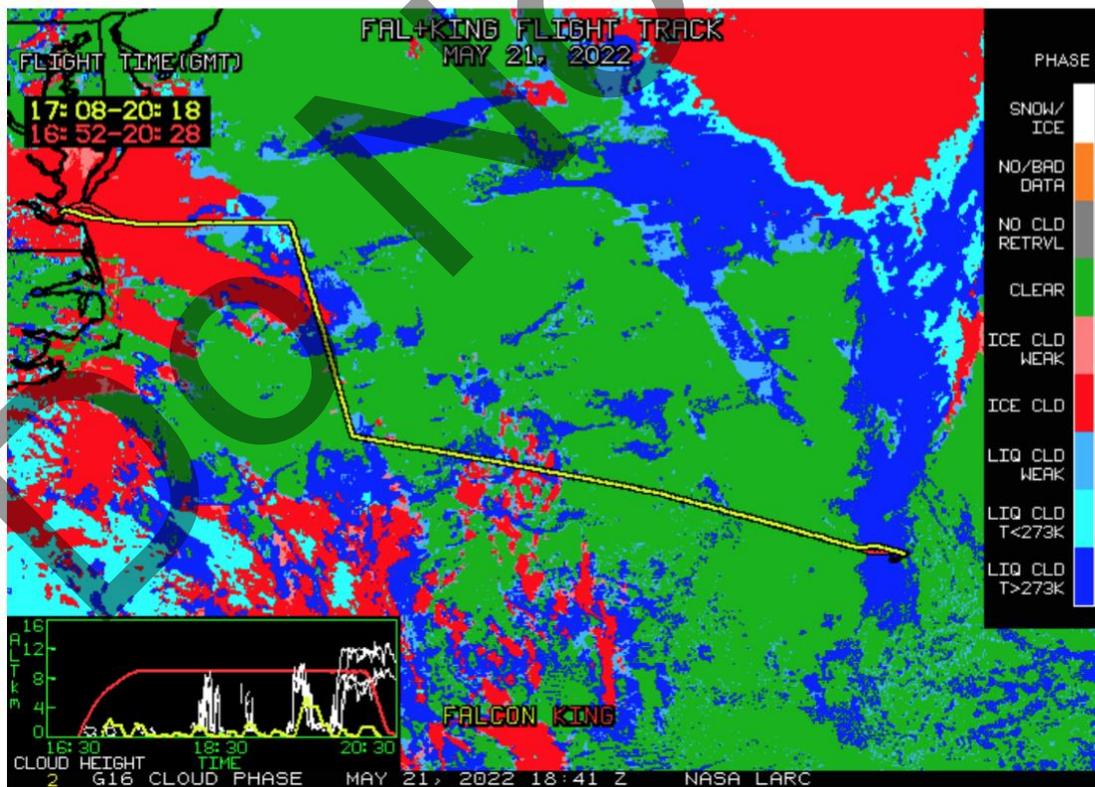


Only pure liquid clouds, large  
Bioaerosol and no Precip.

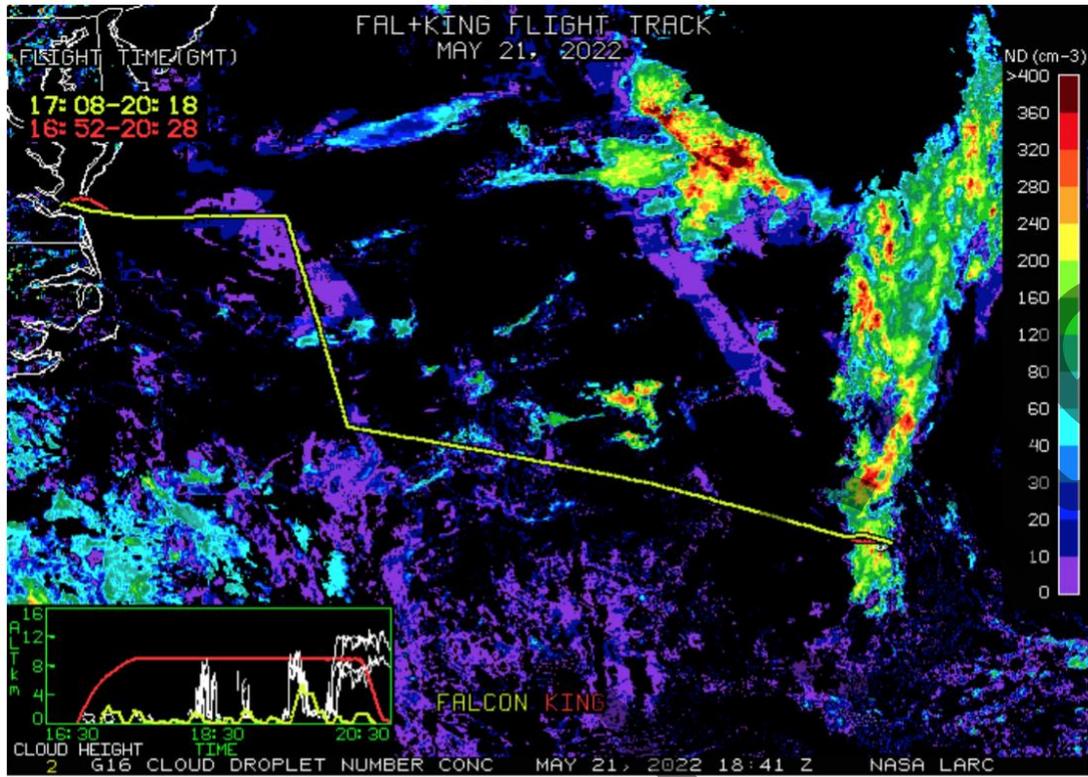
NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 160, 18:41 UTC May 21, 2022  
Visible Image



Cloud Phase



### Cloud Droplet Number Concentration (cm-3)



### Cloud-Top Height (Kft-ASL)

